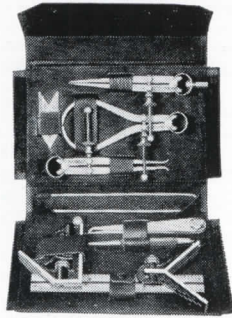


# STARRETT TOOLS FOR Students and Apprentices

Starrett Tools are standard school shop equipment. The features that make Starrett Tools the choice of experienced craftsmen are just as helpful to students and apprentices. Every Starrett Tool combines accuracy and durability in a way that gives lasting service and satisfaction. Start the right way. Use Starrett Tools. Sold by leading Hardware, Automotive and Mill Supply Dealers. Ask for complete Starrett Catalog. It's Free.



Student Set No. 900  
other sets available

## STARRETT EDUCATIONAL SET

A valuable aid to Instructors as well as Students and Apprentices. Assists in teaching the correct use of Precision Tools. Fourteen blue printed pages, 8" x 10½", punched to fit a standard student's notebook. Each page shows a different tool and how to use it. Furnished at cost to instructors, students or apprentices—10 cents per set.



# SCREW THREADS AND TAP DRILL SIZES

**N C or  
A.S.M.E. SPECIAL  
MACHINE SCREWS**

Size of Tap	Thds. per Inch	Tap Drill	Body Drill
1	64	53	47
2	56	50	42
3	48	47	37
4	40	43	31
5	40	38	29
6	32	36	27
8	32	29	18
10	24	25	9
12	24	16	2

**N P T  
PIPE THREADS**

Size of Tap	Thds. per Inch	Tap Drill
1/8	27	R
1/4	18	7/16
3/8	18	37/64
1/2	14	23/32
3/4	14	59/64
1	11 1/2	1 1/32
1 1/4	11 1/2	1 1/2
1 1/2	11 1/2	1 11/16
2	11 1/2	2 7/32
2 1/2	8	2 5/8
3	8	3 1/4

Tap Drills allow approx. 75% Full Thread  
N.P.T. = American National Taper Pipe Thread

**DISTRIBUTED BY**

**N F or  
A.S.M.E. STANDARD  
MACHINE SCREWS**

Size of Tap	Thds. per Inch	Tap Drill	Body Drill
2	64	50	42
3	56	45	37
4	48	42	31
5	44	37	29
6	40	33	27
8	36	29	18
10	32	21	9
*10	30	22	9
12	28	14	2

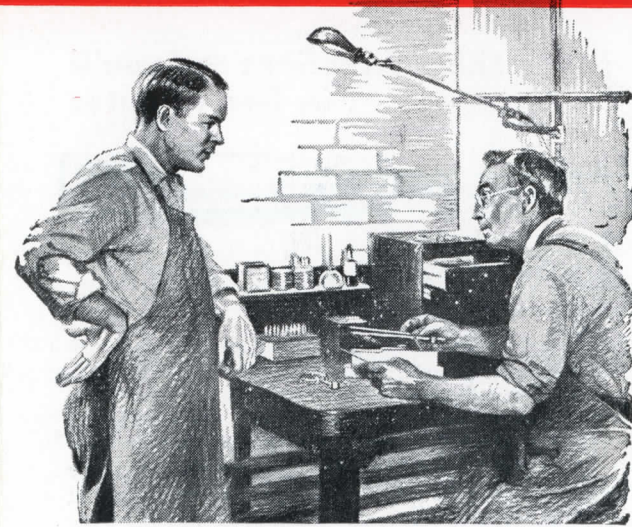
\*A.S.M.E. only

**N F or S.A.E.  
STANDARD SCREWS**

Size of Tap	Thds. per Inch	Tap Drill
1/4	28	3
5/16	24	I
3/8	24	Q
7/16	20	25/64
1/2	20	27/64
9/16	18	23/64
5/8	18	37/64
*11/16	16	5/8
3/4	16	11/16
7/8	14	13/16
1	14	15/16
1 1/8	12	1 3/64

\*S.A.E. only

# HELPFUL INFORMATION FOR Students and Apprentices



*Including*

**HOW TO READ A MICROMETER  
DECIMAL AND MILLIMETER  
EQUIVALENTS FOR FRACTIONAL  
PARTS OF AN INCH  
SCREW THREADS AND TAP  
DRILL SIZES**

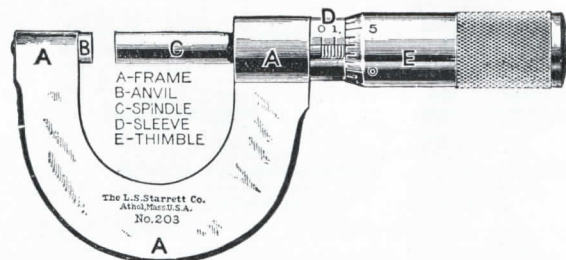
**THE L. S. STARRETT CO.**  
World's Greatest Toolmakers  
**ATHOL • MASSACHUSETTS**

# HOW TO READ A MICROMETER CALIPER

# Starrett

## Decimal and Millimeter Equivalents of Fractional Parts of an Inch

follow these directions and you'll  
learn easily . . . in five minutes



1. Get a micrometer and turn the thimble (see diagram above) until the spindle and the anvil are together. Notice how the thimble is graduated at the edge into 25 divisions. Also notice how the 0 division on the *thimble* and the mark on the *sleeve* come together when the micrometer is closed.

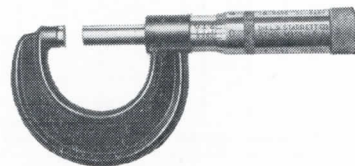
2. Turn the thimble one of these 25 divisions. If you hold the micrometer to the light, you can barely see a space between the anvil and the spindle. That space is one-thousandth of an inch (.001").

3. Turn the thimble 25 divisions and notice how a cross-line appears on the sleeve. Turn it another complete turn and notice how another cross-line shows up. Each cross-line means 25 thousandths (.025").

4. Now turn it two more complete turns. You have four cross-lines in sight now and the fourth is

marked 1. Since each of the cross-lines stands for 25 thousandths, the 1 means 100 thousandths, or .100". Turn it four more turns and you get four more cross-lines, with the last one marked 2. The 2 stands for 200 thousandths, or .200". And so on, with 3, 4, etc.

5. Now notice how far the micrometer in the picture is open. The 1 line is visible. That accounts for 100 thousandths of an inch (.100"). Then there are three more cross-lines (you have to look closely for the third). They account for 25 thousandths (.025") apiece, or .075". On top of that there are three divisions on the thimble beyond the 0 mark, each one standing for 1 thousandth. That makes .003" more. Now, add them up: .100 plus .075 plus .003 equals .178. That's the reading: .178". It's as simple as making change; and as a matter of fact, almost the same as making change if you count the figures on the sleeve as *dollars*, the cross-lines on the sleeve as *quarters* and the divisions on the thimble as *cents*.



## STARRETT MICROMETER No. 436

A practical, inexpensive micrometer. Range, 0 to 1 inch by thousandths. A quick reference table of decimal equivalents is etched on the thimble.

Inches		Inches	mm	Inches		Inches	mm	
1-32	1-64	.01563	.397	17-32	33-64	.51563	13.097	
		.03125	.794				.53125	13.494
	3-64	.04688	1.191			35-64	.54688	13.890
1-16		.0625	1.587	9-16		.5625	14.287	
3-32	5-64	.07813	1.984	19-32	37-64	.57813	14.684	
		.09375	2.381				.59375	15.081
	7-64	.10938	2.778			39-64	.60938	15.478
1-8		.125	3.175	5-8		.625	15.875	
5-32	9-64	.14063	3.572	21-32	41-64	.64063	16.272	
		.15625	3.969				.65625	16.669
	11-64	.17188	4.366			43-64	.67188	17.065
3-16		.1875	4.762	11-16		.6875	17.462	
7-32	13-64	.20313	5.159	23-32	45-64	.70313	17.859	
		.21875	5.556				.71875	18.256
	15-64	.23438	5.953			47-64	.73438	18.653
1-4		.25	6.350	3-4		.75	19.050	
9-32	17-64	.26563	6.747	25-32	49-64	.76563	19.447	
		.28125	7.144				.78125	19.844
	19-64	.29688	7.541			51-64	.79688	20.240
5-16		.3125	7.937	13-16		.8125	20.637	
11-32	21-64	.32813	8.334	27-32	53-64	.82813	21.034	
		.34375	8.731				.84375	21.431
	23-64	.35938	9.128			55-64	.85938	21.828
3-8		.375	9.525	7-8		.875	22.225	
13-32	25-64	.39063	9.922	29-32	57-64	.89063	22.622	
		.40625	10.319				.90625	23.019
	27-64	.42188	10.716			59-64	.92188	23.415
7-16		.4375	11.113	15-16		.9375	23.812	
15-32	29-64	.45313	11.509	31-32	61-64	.95313	24.209	
		.46875	11.906				.96875	24.606
	31-64	.48438	12.303			63-64	.98438	25.003
1-2		.5	12.700	1		1.00000	25.400	